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Gruissem et al.

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The set of claims set forth below replaces all prior versions of the claims in the application.

1. (amended herein) A method of identifying homologous recombination in plant cells, the method comprising:

contacting a plurality of plant cells with a heterologous nucleic acid molecule comprising a fusion polynucleotide comprising a sequence encoding a fusion protein comprising a polypeptide sequence of interest linked to a reporter sequence, wherein the nucleic acid molecule lacks sequences necessary for expression of the fusion polynucleotide gene product protein in a cell; and

detecting the presence of the reporter activity in the plant cells, thereby identifying plant cells in which homologous recombination has occurred between the introduced heterologous nucleic acid molecule and [endogenous] plant DNA.

- 2. (original) The method of claim 1, wherein the step of contacting is carried out using a T-DNA vector.
- 3. (original) The method of claim 1, further comprising the step of regenerating plants from the plant cells before the step of detecting the presence of the fusion sequence gene product.
- 4. (original) The method of claim 1, wherein the reporter sequence is non-selective.
- 5. (original) The method of claim 4, wherein the non-selective reporter sequence encodes luciferase.
- 6. (original) The method of claim 5, wherein the step of detecting is carried out using video imaging equipment.

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7. (original) The method of claim 1, wherein the plant cell is Arabidopsis.

Claims 8-12 | Cancelled herein

Claims 13-31 Withdrawn